STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

## **POLICY DIRECTIVE**

TR-0011 (REV 5/11/2004)

	NUMBER	PAGE	
TRAFFIC OPERATIONS POLICY DIRECTIVE		–	
	05-01	1 OF 4	
KARLA SUTLIFF, DIVISION CHIEF (Signature)	DATE ISSUED	EFFECTIVE DATE	
Glynn Mis for Su+1.ff	01/26/05	01/26/05	
SUBJECT / /	DISTRIBUTION		
Minimum Yelloy Light Change Interval	All District Directors		
ŕ	All Deputy District Director	s - Traffic Operations	
	All Deputy District Directors - Maintenance		
	All Deputy District Directors - Construction		
	All Deputy District Director	rs - Design	
	All Deputy District Director	s - Transportation Planning	
	Chief, Division of Engineer	ring Services	
<sup>2</sup> / <sub>4</sub> α	Chief Counsel, Legal Division		
	Publications (California Supplement Website) http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/index.htm		
	Headquarters Division Chiefs for:		
DOES THIS DIRECTIVE AFFECT OR SUPERSEDE YES NO ANOTHER DOCUMENT?	IF YES, DESCRIBE		
WILL THIS DIRECTIVE BE INCORPORATED IN THE YES NO MUTCD 2003 CALIFORNIA SUPPLEMENT?	IF YES, DESCRIBE		
	Section 4D.10 - Yellow Change an	nd Red Clearance Intervals	

# **DIRECTIVE**

MUTCD 2003 California Supplement Section 4D.10, Yellow Change and Red Clearance Intervals, is revised to make it clear that the posted speed limit or the prima facie speed limit are to be used in determining the minimum yellow light change interval. This Directive is effective immediately.

If checked, see continuation page(s).

(Continued)

TR-0011 (REV 5/11/2004)

## **IMPLEMENTATION**

MUTCD 2003 California Supplement Section 4D.10 Yellow Change and Red Clearance Intervals policy is amended. The revised policy is as follows:

### Section 4D.10 Yellow Change and Red Clearance Intervals

### Support:

The purpose of the yellow signal indication is to warn traffic approaching a traffic signal that the related green movement is ending or that a red indication will be exhibited immediately thereafter and traffic will be required to stop when the red signal is exhibited.

The following methodology in this section provides guidance for establishing the "minimum yellow light change interval" for traffic signals. This methodology is essentially the same as included in Section 9-04.5 of the Caltrans 1996 Traffic Manual. The 1996 Manual used the term "approach speed" for the minimum yellow interval, which caused some confusion for the courts. The methodology in this section uses the posted speed limit or prima facie speed limit instead of the approach speed. At the December 8, 2004 meeting of the California Traffic Control Devices Committee (CTCDC) there was discussion regarding the desirability of changing the methodology because some public agencies are using automated enforcement systems. The CTCDC recommended that the methodology in this section be reevaluated after a period of one year. During this one-year period, the Committee will examine whether changes in the methodology would be appropriate.

#### Standard:

The minimum yellow light change interval shall be in accordance with Table 4D-102. The posted speed limit, or the prima facie speed limit established by the California Vehicle Code (CVC) shall be used for determination of the minimum yellow light change interval for the through traffic movement.

The minimum yellow light change interval for a protected left-turn or protected right-turn phase shall be 3.0 seconds.

#### Option:

The minimum yellow light change interval for the through movement and the protected left-turn or protected right-turn may be increased based on a field review or by using appropriate judgement. That judgment may be based on numerous factors, including, but not limited to, 85th percentile speed, intersection geometry and field observation of traffic behavior.

Table 4D-102 Minimum Yellow Light Change Interval

Posted Speed or Minimum Prima Facie Speed Yellow		Minimum	Table 4D-102 is based on the following formula:	
		Yellow	-	
		Interval	T = t + V/2d	
			T = The minimum yellow light change interval (second)	
. <u>mph</u>	km/h	Seconds	V = Posted speed or prima facie speed, (m/second or ft/second)	
25 or less	40 or less	3.0	d = Deceleration Rate (3.05 m/second/second or 10ft/second/second)	
30	48	3.2	t = Reaction time (1 second)	
35	56	3.6		
40	64	3.9		
45	72	4.3		
50	80	4.7		
55	89	5.0		
60	97	5.4		
65	105	5.8		

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(Continued)

## **BACKGROUND**

The methodology in Section 4D.10 provides guidance for establishing the "minimum yellow light change interval" for traffic signals. This methodology is essentially the same as was included in Section 9-04.5 of the Caltrans 1996 Traffic Manual. The 1996 Manual used the term "approach speed" for the minimum yellow interval, which caused some confusion for the courts. The methodology in this section uses the posted speed limit or prima facie speed limit instead of the approach speed. At the December 8, 2004 meeting of the California Traffic Control Devices Committee (CTCDC) there was discussion regarding the desirability of changing the methodology because some public agencies are using automated enforcement systems. The CTCDC recommended that the methodology in this section be reevaluated after a period of one year. During this one-year period, the Committee will examine whether changes in the methodology would be appropriate.

### **DEFINITIONS**

When used in this Traffic Operations Policy Directive, the text shall be defined as follows:

- 1) **Standard** a statement of required, mandatory, or specifically prohibited practice. All standards text appears in **bold** type. The verb **shall** is typically used. Standards are sometimes modified by Options.
- 2) <u>Guidance</u> a statement of recommended, but not mandatory, practice in typical situations, with deviations allowed if engineering judgement or engineering study indicates the deviation to be appropriate. All Guidance statements text appears in <u>underlined</u> type. The verb <u>should</u> is typically used. Guidance statements are sometimes modified by Options.
- 3) Option a statement of practice that is a permissive condition and carries no requirement or recommendation. Options may contain allowable modifications to a Standard or Guidance. All Option statements text appears in normal type. The verb may is typically used.
- 4) Support an informational statement that does not convey any degree of mandate, recommendation, authorization, prohibition, or enforceable condition. Support statements text appears in normal type. The verbs shall, should and may are not used in Support statements.

#### **ATTACHMENTS**